

Title: Regression methods in statistical software

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Abstract: Regression analysis is a useful instrument for data mining. This thesis contains detailed information about linear regression especially about the mean least squares method. The theoretical part is divided into two parts: general theoretical introduction of the first part explains parameters, abilities and usage of mean least squares method; several algorithms for numerical solving of linear equation systems. Three ordinarily used statistical softwares are described in the last part of the diploma thesis: MatLab, software R, SPSS. These softwares were chosen to represent the whole spectrum of all existed statistical programs.

Keywords: regression analysis, linear regression, regression, least mean squares method, statistical softwares.